

## REMARKS

The present Amendment responds to the Office Action dated April 20, 2006.

Claims 1, 3, 5, 6 and 8-23 are pending in the application. The applicant notes that the examiner, upon consideration of applicant's arguments filed on January 25, 2006, has allowed Claims 1, 3, 5, 6 and 8-14.

Claims 15 and 18-21 are currently rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over *Farrell* U.S. Patent No. 6,935,857.

Also the examiner objected to claims 16-17, and 22-23 as being dependent upon a rejected base claim, but allowable if rewritten in independent form including all limitations of the base claim and any intervening claims.

Applicant further notes that the examiner has withdrawn the restriction requirement in light of applicant's arguments filed on January 25, 2006.

### **Claim 15 not anticipated by or obvious over *Farrell***

Claims 15 and 18-21 stand anticipated by or, in the alternative, obvious over *Farrell* U.S. Patent No. 6,935,857. By this, the examiner believes that all elements of the claims are shown by *Farrell*, or in the alternative, the differences between the claimed invention and the prior art are such that the claimed invention would have been obvious at the time the invention was made.

The applicant respectfully traverses the rejection, and requests reconsideration of claim 15 in view of the following discussion detailing the patentability of the invention over the prior art.

The examiner states that *Farrell* discloses an oral appliance, a mouth guard or an orthodontic device, therefore capable of being used as an oral prophylaxis. Further, the examiner asserts that the particular structural limitations of claim 15 including those limitations added in the previous amendment to claim 15 are disclosed by *Farrell*.

The examiner relies in part on Fig. 5 of *Farrell* to support the rejection. Fig. 5 illustrates a rear three-dimensional view of the base member. The examiner asserts that Fig. 5 shows an oral prophylaxis having “a pair of opposed peripheral framing braces, each framing brace extending downwardly from a buccal periphery of the mandibular face at the molar zone”. The examiner contends that *Farrell* discloses the structural limitation submitted in applicant’s previous amendment to claim 15: “the buccal periphery of the mandibular face being free of downward extension intermediate the labial force dispersal shield and the framing braces.” Applicant respectfully traverses.

*Farrell* is directed to a hollow mouth guard having a U-shaped upper channel defined by an inner and outer flange as well as a lower channel defined by a pair of continuous opposing side walls. The outer side wall prevents air flow over, around, or between tooth surfaces. However, to allow the user to breathe, a front portion of the base member defines a plurality of holes traversing the base member.

The prophylaxis appliance described and illustrated in *Farrell* contains a lower channel defined by a web and opposing continuous inner and outer side walls or downward peripheral

extensions. More specifically, the appliance in *Farrell* contains a buccal peripheral outer side wall that is structurally continuous from opposing molar zones through the medial labial zone. The peripheral side wall thus extends as a downward skirt along the periphery from the molar zone through the labial zone.

In contrast to the device in *Farrell*, the interocclusal sports prophylaxis as set forth in claim 15 includes a downwardly extending labial force dispersal shield and downwardly extending framing braces at molar zones with an intermediate, planar mandibular face free of downward extensions to facilitate mouth breathing. Indeed, the downward extension structure of the present invention is discontinuous intermediate the molar framing braces and the labial zone.

To illustrate this novel feature, applicant directs the examiner's attention to the attached annotated drawing that displays Fig. 5 of *Farrell* in comparison to Fig. 9 of applicant's disclosure. Applicant specifically notes in *Farrell* the uninterrupted, continuous nature of the buccal outer side wall (labeled "A" and shaded red) defining the periphery of the appliance's lower channel. In contrast, claim 15 requires the oral prophylaxis contain outer side walls or downward extensions (illustrated in green shade) comprising the labial force dispersal shield (labeled "B") and the opposing buccal molar framing braces (labeled "C") with buccal periphery of the mandibular face being free of downward extension intermediate the dispersal shield and the framing brace (intermediate zone labeled "D"). Thus, the downward extension is discontinuous between the molar zone and the labial zone.

Put another way, the claimed oral prophylaxis appliance contains a pair of structurally planar, lower mandibular faces (labeled “X” and shaded blue) having no peripheral side wall or downward extension. The absence of the downward extension is denoted generally in the annotated drawing by label “D” between the labial force dispersal shield (“B”) and the molar framing brace (“C”). The absence of a downward extension from the lower mandibular face X allows air to pass laterally between the occlusal surfaces and the lower mandibular face into the user’s mouth for purposes of breathing.

The structure of claim 15 is novel in view of *Farrell* that includes the continuous periphery downward extension and lacks the absence of downward extension. Further, the invention as claimed is not described, disclosed or suggested by *Farrell*. Indeed, the downward extension in *Farrell* is continuous, and not discontinuous, in the intermediate zone. The structural differences as recited in claim 15 are such that the invention as a whole would not have been obvious over *Farrell* that lacks teaching or motivation to provide an oral prophylaxis with an absence of downward extension intermediate the molar zones and the labial zone. For the foregoing reasons, claim 15 is allowable over *Farrell*, and same is earnestly solicited.

### **Allowability of dependent claims 16 and 17**

Claims 16 and 17 are directed to particular features of the interocclusal sports prophylaxis. As set forth in claim 16, the dentition casement material covers the molar zones and an incisor zone of the mandibular face.

Claim 17 is directed to the feature of the incisor zone and molar zones extending below a plane of the mandibular face whereby mandibular occlusal surfaces of a user not registered with the incisor zone and the molar zones are spaced from the molar face to provide opposed breathing passages during use of the prophylaxis appliance.

### **Method claim 18 allowable over *Farrell***

The examiner rejected claim 18 on the grounds that *Farrell* discloses structure necessary for performing the method steps of claim 18. The applicant respectfully traverses.

Particularly, *Farrell* lacks any teaching or suggestion that the molding step for the core having an arch shaped occlusal plate with a buccal periphery, leave the periphery of the plate free of downward extensions intermediate a labial force dispersal shield and opposing framing braces of the molar zones.

It is noted that claim 18 as previously amended defines a method of fabricating a sports prophylaxis which method includes substantially the limitations of the previously amended claim 15 discussed above. As such, Applicant submits that the claim 18 is allowable as there is no disclosure of the intermediate plate between the molar zones and the labial dispersal shield being free of downward extension, for the reasons previously stated with respect to claim 15.

### **Allowability of dependent claims 19 - 23**

Claims 19 through 23, dependent upon claim 18 or intermediate claims, further define the method of specifying the resins employed to fabricate the prophylaxis and molding techniques. Allowability is evident in view of the fact these claims are dependent from an allowable claim and by virtue of the inclusion of patentable subject matter.

Claim 19 is directed to feature of providing the first thermoplastic resin as a blend of a thermoplastic polyurethane elastomer with a thermoplastic selected from the group consisting of ethylene vinyl acetate copolymer and ethylene methyl acetate copolymer.

Claim 20 is directed to the feature of the second thermoplastic resin comprising an ethylene vinyl acetate copolymer.

Claim 21 provides that the step d) is performed by molding the dentition encasement material over maxillary surfaces of the occlusal plate.

Claim 22 provides that the step d) is further performed by molding the dentition encasement material over mandibular surfaces of the occlusal plate at the incisor zone and at the molar zones.

Claim 23 provides that the occlusal plate includes passages extending between maxillary surfaces and mandibular surfaces at the incisor zone and at the molar zones and that step d) is further performed by molding the dentition encasement material into the passages to unite the dentition encasement material molded over the maxillary surfaces of the occlusal plate with the dentition encasement material molded over the mandibular surfaces of the occlusal plate.

## Claim 17 Amendments

Informalities in claim 17 are clarified by amendment, and not in response to any particular prior art citation.

## Summary

It is respectfully submitted that for the foregoing reasons claims 15 - 23 are allowable over the prior art of record. In view of the prior indications of allowability by the examiner, claims 1, 3, 5, 6, and 8 - 23 are believed in condition for allowance, and same is earnestly solicited.

Respectfully submitted,



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